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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,848	04/12/2001	Richard D. Bucholz	06148.0026-03	2372

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EXAMINER	
MANTIS MERCADER, ELENI M	
ART UNIT	PAPER NUMBER
3737	

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/832,848	Applicant(s) BUCHOLZ ET AL.	
	Examiner Eleni Mantis Mercader	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *56-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *56-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

FINAL ACTION

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Response to Arguments

1. Applicant's arguments with respect to claims 56-67 have been considered but are moot in view of the new ground(s) of rejection. The newly added limitation stating: a relative position between said reference points of the body element or the semi-rigid body element being variable, constitutes new grounds for rejection.

2. The 101 rejection has been overcome by the amendment. The double patenting rejection with respect to U.S. Patent No. 6,236,875 has been overcome with the Terminal Disclaimer. Applicant's arguments with respect to the double patenting rejections with respect to U.S. Patent Nos. 6,347,240 and 6,434,415 have been considered but are moot in view of the new ground(s) of rejection. The double patenting rejections with respect to U.S. Patent No. 6,347,240 and 6,434,415 are not persuasive, in that first the reference to a priority to a different application has nothing to do with double patenting and second, the remaining arguments are centered with respect to the newly added limitation which necessarily was not been previously addressed by the Examiner and thereby constitutes new grounds for rejection.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 56-67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,434,415 in view of Cosman'126. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 56-63 merely set forth the transform or the program for modifying or updating the image which would be inherent in the system and method of the patented claims in order to carry out the localization of the body elements and update the image and claims 64-67 merely constitute alternate obvious variations of the patented claims. In addition the localization of the semi-rigid body element wherein the relative positions of the reference points of the body element is variable would have been an obvious modification to one skilled in the art at the time that the invention was made because as illustrated by Cosman'126 that would been determined by the texture of the element, in that if the reference points were placed on the skin as taught by Cosman'126, then the relative positions of the reference points would change with the movement of the patient due to the flexible structure of the skin allowing

movement between the tracked reference points (see for example figures 5 and 6; see col. 11, lines 1-67).

5. Claims 56-67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-55 of U.S. Patent No. 6,347,240 in view of Cosman'126. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 56-63 merely set forth the transform or the program for modifying or updating the image which would be inherent in the system and method of the patented claims in order to carry out the localization of the body elements and update the image and claims 64-67 merely constitute alternate obvious variations of the patented claims. In addition the localization of the semi-rigid body element wherein the relative positions of the reference points of the body element is variable would have been an obvious modification to one skilled in the art at the time that the invention was made because as illustrated by Cosman'126 that would been determined by the texture of the element, in that if the reference points were placed on the skin as taught by Cosman'126, then the relative positions of the reference points would change with the movement of the patient due to the flexible structure of the skin allowing movement between the tracked reference points (see for example figures 5 and 6; see col. 11, lines 1-67).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 56-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cosman'126.

Cosman'126 teaches the registration of previously taken images (such as by using CT) with current identification of registration points which move relative to one another, and wherein tracking the relative positions allows for appropriate alignment with previously acquired images, including contours and accurate guidance of surgical procedures (see col. 11, lines 26-67 and also see col. 13, lines 60-67 and cols. 14-19). The relative positions of the reference points will necessarily change because of the texture of the element being tracked, namely the skin of the patient (see Figure 6). The use of fluoroscopic imaging in order to align these images with previously acquired CT images would have been an alternative functional equivalent of using the cameras to currently identify the location of the reference points or markers being tracked (see for example col. 15, lines 50-61). One skilled in the art would have known that any type of imaging can be used to localize the reference points and align them with previously taken images by the modality of interest.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni Mantis Mercader whose telephone number is 703 308-0899. The examiner can normally be reached on Mon. - Fri., 8:00 a.m.-6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Ruhl can be reached on 703 308-2262. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0858.

Eleni Mantis Mercader
Patent Examiner
Art Unit 3737

EMM